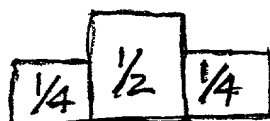
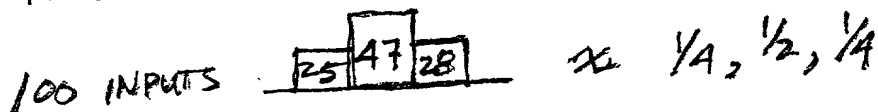
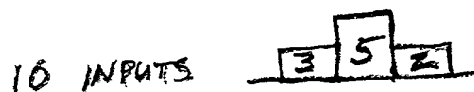


(a) TRADITIONAL FILTER



SHAPED PROBABILITY DENSITY
FUNCTION



(b) STATISTICAL FILTER

FIG. 1.

The diagram illustrates a dual-channel signal processing system for X and Y coordinates. It consists of two parallel processing paths, one for the Y-axis (top) and one for the X-axis (bottom), both feeding into a common X/Y Plot output.

Y-axis Processing Path (Top):

- Input 14:** HIGH RES "Y" DATA (12 BITS).
- Input 22:** SHAPED RANDOM NUMBER GEN (8 BITS).
- Block 18:** SUMMING (12 BITS OUT). This block receives inputs from 14 and 22.
- Block 26:** TRUNCATE (9 BITS OUT). This block receives input from 18.
- Output 28:** X/Y PLOT (640 x 480). This block receives input from 26.

X-axis Processing Path (Bottom):

- Input 12:** HIGH RES "X" DATA (12 BITS).
- Input 20:** SHAPED RANDOM NUMBER GEN (8 BITS).
- Block 16:** SUMMING (12 BITS OUT). This block receives inputs from 12 and 20.
- Block 24:** TRUNCATE (10 BITS OUT). This block receives input from 16.
- Output 28:** X/Y PLOT (640 x 480). This block receives input from 24.

Handwritten labels 14, 18, 22, 26, and 28 are present next to their respective blocks or inputs.

FIG. 2

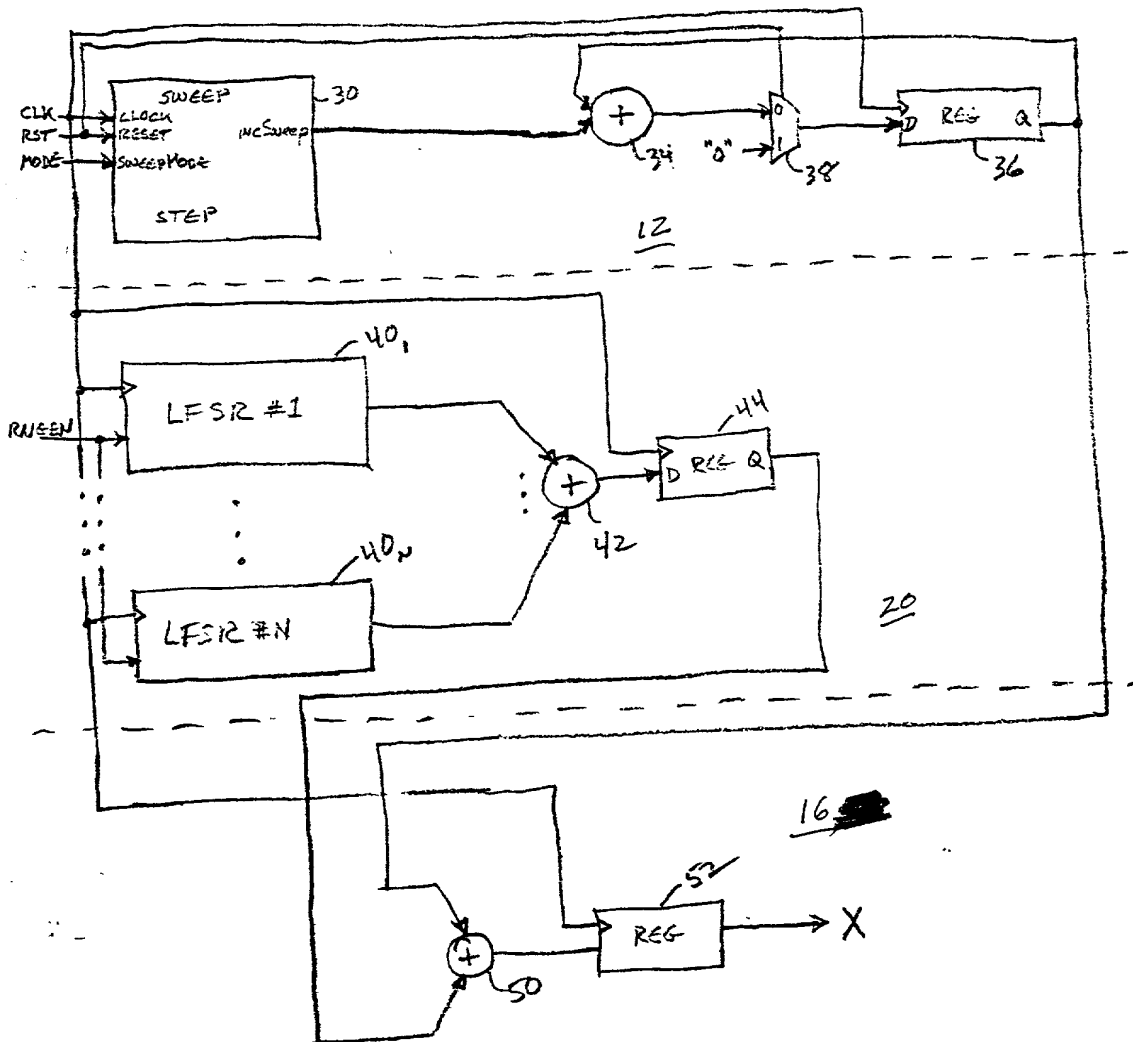
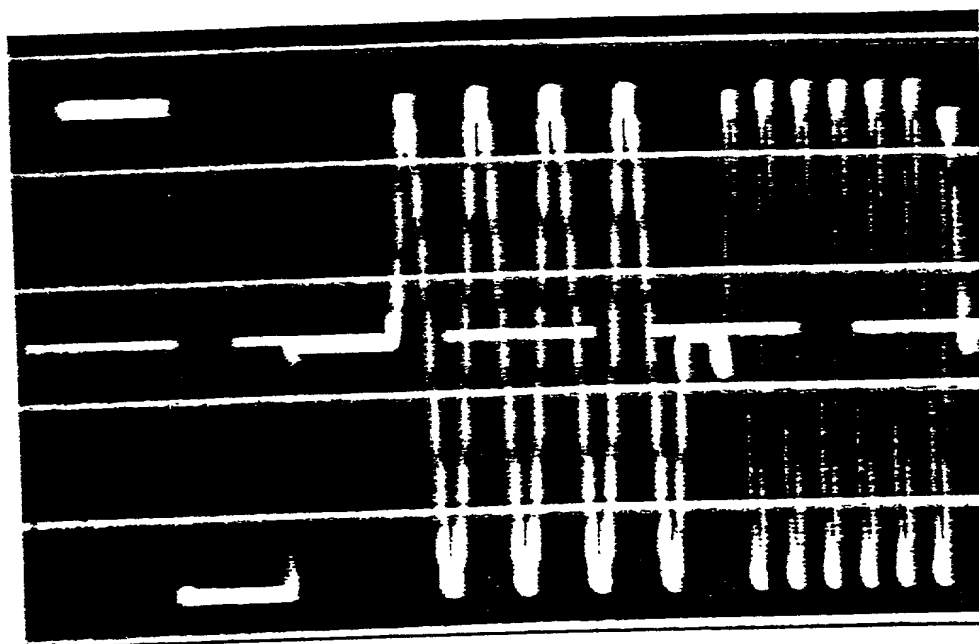


FIG. 3

09026660 112101

(a)



(b)

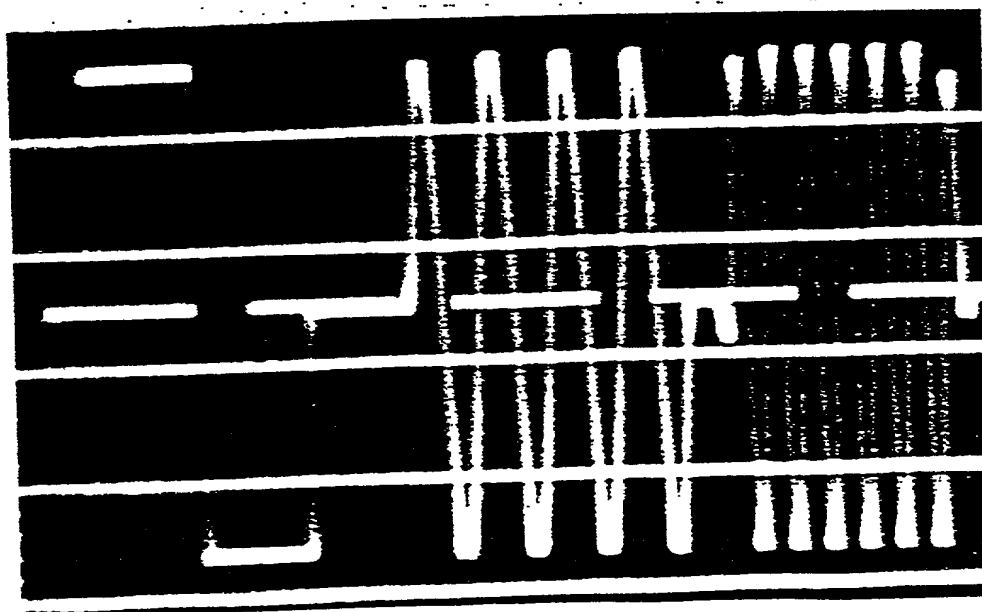


FIG. 4